



California Independent  
System Operator Corporation

March 3, 2008

The Honorable Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, DC 20426

**Re: Monthly Status Report re MRTU, California Independent  
System Operator Corporation  
Docket No. ER06-615**

Dear Ms. Bose:

Enclosed for filing in the above-captioned docket, please find an electronic copy of the March 2008 Status Report of the California Independent System Operator Corporation.

Respectfully submitted,

**/s/ Sidney Mannheim Davies**

Sidney Mannheim Davies  
The California Independent System  
Operator Corporation  
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Folsom, CA 95630

Attorneys for the California Independent  
System Operator Corporation

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

<b>California Independent System Operator Corporation</b>	)	<b>Docket No. ER06-615</b>
	)	
	)	

**MARCH 2008 STATUS REPORT OF THE  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

The California Independent System Operator Corporation (“CAISO”) respectfully submits this monthly progress report (“Report”) here attached in compliance with Paragraph 1415 of the Commission’s September 21, 2006 “Order Conditionally Accepting The California Independent System Operator’s Electric Tariff Filing To Reflect Market Redesign and Technology Upgrade,” 116 FERC ¶ 61,274 (2006) (“September 21 Order”), issued in the above-referenced docket. The September 21 Order requires the CAISO to file monthly reports concerning the progress in designing and implementing the CAISO’s Market Redesign and Technology Upgrade (“MRTU”) and, as required by P 1415 of the September 21 Order, on the status of the CAISO’s MRTU readiness program. The CAISO will continue to file this monthly report on the first Monday of the month through the implementation of MRTU, which date is currently being reevaluated. The attached report provides a high level update concerning the status of the three components of the MRTU project: People, Process and Technology.

As previously reported in the January and February 2008 MRTU Status Reports, the CAISO was required to delay the start of the Integrated Market Simulation – Update 2 (IMS-U2) due to system stability issues and indicated that

the delay of IMS-U2 would affect the previously proposed Go Live date of March 31, 2008. At the January 29, 2008 Board of Governors meeting, CAISO management indicated that the current target date for the start of IMS-U2 would be February 19, 2008. CAISO management further indicated that it would not announce a new MRTU Go Live date until IMS-U2 was up and running successfully. Recognizing the challenges that this uncertainty presents to market participants, CAISO management expressed assurances at the meeting that the CAISO would not begin MRTU until both the CAISO and its market participants were ready and that Go Live date for MRTU would need to be acceptable to market participants and CAISO.

The CAISO is pleased to report that IMS-U2 commenced on February 19, 2008 as planned. If testing and market simulation continues as expected, the CAISO anticipates that it will be in the position to establish a new MRTU Go Live date by late March 2008.

Respectfully submitted,

**/s/ Sidney Mannheim Davies**  
Sidney Mannheim Davies

Counsel for the California Independent  
System Operator Corporation

Dated: March 3, 2008

**ATTACHMENT**

**Market Redesign and Technology Upgrade**

**FERC Report**

**March 3, 2008**

# **Market Redesign and Technology Upgrade**

**FERC Report**

**March 3, 2008**

## **Executive Summary:**

This report is an update to the February 4, 2008 report of the accomplishments and provides the status of the Market Redesign and Technology Upgrade (“MRTU”) for February 2008. The status report will continue to provide the Federal Energy Regulatory Commission (“Commission”) with additional information supporting the California Independent System Operator’s (CAISO) efforts to prepare itself and its Market Participants to commence MRTU operations. The highlights for the month include:

- Integrated Market Simulation - Update 2 (“IMS Update 2”) started on February 19, 2008.
  - IMS Update 2 began with gradual testing of the Portal and Market Systems.
  - 11 Participants are participating in testing on-site at CAISO.
  - 77% of Scheduling Coordinators participated in the simulation during the first week.
  - It is anticipated that scenario testing will begin the week of March 10<sup>th</sup>.
  - The final promotion of applications is targeted to be the end of March.
- The MRTU Go Live date is not April 1, 2008. The CAISO will announce a new date when:
  - Market Participants have had an opportunity to test the MRTU functionality.
  - Market Participants have provided feedback to CAISO management.
  - If progress on current testing continues, the CAISO hopes to be in a position to set a new MRTU Go Live date towards the end of March.
- Readiness activities continued throughout the month.

## Overall Dashboard

The following dashboard outlines the current status for Business Units, Market Participants and the MRTU Program Management for the components People, Process, and Technology at the time the report was filed.

**Please Note:** The overall program status is the same as the February FERC Report pending determination of a revised Go Live date. When viewing the Dashboard below, please note that both the CAISO Business Units, as well as the Market Participants were assessed based off of a Go-Live Trade Date of April 1, 2008. The status provided for the Business Units is as of a February 2008 assessment and Market Participants People and Process is as of September 2007. Although progress has been made, the CAISO will continue to further assess these areas during IMS U2. In each case, the status provided is reflective of the lowest common denominator (score) for each category.

Category	Business Units		Market Participants
	Core	Non-Core	
People			
Process			
Technology			

 = No Delays

 = Delay, but will not impact 4/1/08 Go-Live Trade Date. Contingency maintained, but at risk

 = Delay, will impact program delivery and 4/1/08 Go-Live Trade Date. Use of contingency funds

### Technology/Testing Readiness:

The MRTU Integration Testing project has been focused on the start of Integrated Market Simulation Update 2 ("IMS Update 2"). IMS Update 2 began on Tuesday, February 19, 2008 introducing new market system components, an upgrade to the Full Network Model and the integration of additional legacy applications. Integration testing continues on the remaining legacy applications and addition market functionality. The final drop of full MRTU functionality is targeted for late March.

MRTU Schedule	
Current Period	Trend
	

MRTU Budget	
Current Period	Trend
	

**Tracking Delay: 0 weeks**  
**Critical Path Items:** Vendor Delivery, Integration Testing, Market Simulation Schedule  
*\*Based on approved 4/1/08 Go-Live Trade date*

**Approved MRTU budget: \$189.223 M\***  
*\*Based on approved budget on 12/06*

- IMS Update 2 started on February 19 integrating FERC changes for the core Market Systems and Legacy applications. Eleven Market Participants are participating in testing on site at CAISO
- Integration Testing remains in progress and full functionality is targeted to be dropped into IMS Update 2 in late March.

- PMO has been allocated \$4.5 million of the contingency to date.
- PMO is evaluating total program budget in light of a revised Go Live date.

	Complete
	No Delays
	Delay, but will not impact 4/1/08 go-live date. Contingency maintained, but at risk
	Delay, will impact program delivery and 4/1/08 Go-Live Date. Use of contingency funds

**Key Accomplishments:**

- **Functional Integration Test (“FIT”) Planning:** Planning for IMS Update 2 is completed.
- **FIT Testing – Start:** Execution of the FIT testing for start of IMS Update 2 is completed.
- **FIT Testing - Full:** Execution of Full FIT for IMS Update 2 is 48% complete (98 of 203 test cases).
- **End-to-End (“ETE”) Planning:** Test planning for IMS Update 2 is completed.
- **ETE Testing:** Execution of ETE testing is 36% complete (62 of 170 test cases).

**Key Issues:**

- **Vendor Delivery:** variance turn-around time continues to be a risk, although the quality of vendor deliverables has improved over the last few weeks.
- **Market Systems:**
  - Quality of solution, performance, and stability testing ongoing with positive results, but more testing is necessary to validate readiness for Go-Live.
  - Provided that the current testing continues to be productive, the CAISO hopes to be in a position to set a new MRTU Go Live date towards the end of March.
  - Need to integrate EMS with market systems.

- Unknown functional gaps are still being discovered and assessed.
- **Settlements:** All Charge Types have been delivered, but significant validation remains (28/121 validated)
- **Market Simulation Experience:** Formatted Market Simulation to build up Market Participants confidence.

**Readiness:**

As of February 25, 2008, the CAISO Business Units and External Market Participants are continuing their readiness activities but the status has not substantially changed as IMS testing has begun, but as a gradual approach. The following dashboard outlines the status for Internal Readiness and External Readiness.

**Please Note:** *The overall program status is the same as the February FERC Report pending determination of a revised Go Live date. When viewing the Dashboard below, please note that both the CAISO Business Units, as well as the Market Participants were assessed based off of a Go-Live Trade Date of April 1, 2008. The status provided for the Business Units is as of a February 2008 and Market Participants People and Process is as of September 2007 assessment. Although progress has been made, the CAISO will continue to assess these areas during IMS U2. In each case, the status provided is reflective of the lowest common denominator (score) for each category*

Internal Readiness	
Current Period	Trend
Y	➔

External Readiness	
Current Period	Trend
Y	➔

- Tracking to final go-live checklists of remaining activities by Business Units.
- Continued planning of complete End-to-End business process testing of critical MRTU processes. Reworking processes as initial testing of the systems by the Business Unit occurs.
- Defined Operations testing scenarios and working through details to begin execution at the end of February.
- IMS Update 2 started on February 19 integrating FERC changes for the core Market Systems and Legacy applications.
- Continued Market Simulation support initiative to help prepare Participants.
- Participant Check Points/Follow Ups planned throughout Market Simulation Update 2 (target to start in mid-March).
- Quick Response Team continues to address Participant issues.
- Delivered Level 200 MRTU Training (session 12).

	Complete
	No Delays
	Delay, but will not impact 4/1/08 go-live date. Contingency maintained, but at risk
	Delay, will impact program delivery and 4/1/08 Go-Live Date. Use of contingency funds

Key Accomplishments:

*CAISO Business Unit Readiness*

- **Training:** CAISO Employees continued with knowledge transfer. The final technical training courses are targeted for late March. Scenario execution planning for Business Units has begun and started executing during end of February.
- **To-Be Processes:** Planning and prep work continues for the fourth and final phase of Process Walkthroughs and will test processes during market simulation. Some Processes owners have indicated a need to rework their Business Processes based on initial testing to date and updates are in progress.
- **Assessment of Readiness:** For all Business Units, remaining activities are being tracked toward completion on a weekly basis. The Business Units are getting more involved in testing and defining out specific scenarios to execute as part of the final readiness criteria.

*Market Participant Readiness*

- **Integrated Market Simulation:** IMS Update 2 began on February 19<sup>th</sup> and was open to all Participants. CAISO is also hosting On-site Testing and Support to specific Scheduling Coordinators selected by the Market Participants.
- **Training:** Conducted Level 200 Training on February 11 – 14<sup>th</sup> and completed all requested ETC Workshops with Scheduling Coordinators. Continued registrations for Bid to Bill training on March 11 – 13<sup>th</sup>.
- **Assessment of Readiness:** Planned regular checkpoints during IMS Update 2 to gauge Market Participant experience and concerns. Final Assessment will be completed 60 days prior to Go Live.

*Market Participant Onsite Testing:*

To help facilitate a successful start of IMS U2, Market Participants and CAISO collaboratively developed a gradual step-by-step functional testing approach to verify core MRTU system functionality during the first few weeks of IMS U2. As with previous Market Simulation efforts, IMS U2 systems are open to all Market Participants. However, for this initial testing phase, CAISO is also accommodating eleven (11) Scheduling Coordinators, selected by the Market Participants as a representative group, to conduct IMS U2 testing on-site at CAISO.

The goal of the on-site Market Participant presence is to promote further communication among Market Participants and CAISO to help expedite identification and resolution of issues. CAISO is also allocating Subject Matter Experts (SMEs) each day to work directly with Market Participants on-site to see first hand the issues encountered. To ensure



equal access to Market Participants off-site as well, CAISO provides an open conference call for all Market Participants to raise and discuss any questions or issues throughout the day. CAISO also conducts daily checkpoints each day at 9:00 a.m. and 2:30 p.m. with all Market Participants to mutually assess the testing status and determine next steps.

**Risks and Mitigations:**

Risks and Mitigations	
<b>Technology/Testing</b>	<ul style="list-style-type: none"> <li>▪ <b>High Availability</b> for the IMS Update 2 environment is not yet in place. Mitigation: Development of a plan to implement it is in progress.</li> <li>▪ <b>Application and Infrastructure Monitoring</b> in IMS Update 2 needs to be enhanced. Mitigation: IT is working with the infrastructure team and application owners to continue to refine monitors, alerts, and the communication process surrounding them.</li> <li>▪ <b>Integration Bus Stability</b> - Progress has been made and the team continues to work closely with the vendor to further enhance availability of the integration bus.</li> <li>▪ <b>System Stability and Performance</b> - While Day-Ahead and Real-Time Markets have been running, there are still intermittent problems that arise daily that hamper meeting the scheduled timeline for running of markets. The vendor has made strides in the application performance, but additional patches need to be received to meet the CAISO's performance requirements. CAISO is also evaluating the work flow processes to determine if performance can be enhanced.</li> </ul>
<b>Business Units</b>	<ul style="list-style-type: none"> <li>▪ <b>Core Business Units</b> – Ongoing monitoring of Business Unit Readiness reveals that not all Core Business Units are on track. Common risk/problem areas identified include: Understanding and completion of the Transition and Support Plans of Application to Business Unit/IT, Testing Schedule and Application delays impacting readiness activities, Business Reporting Tools and Applications development delays, and approach and completion of Business Process End-to-End Testing. For the common risks/problem areas highlighted above, as well as the unique to the Business Unit risks/problems a Go-Live checklist is being used to track the Business Units to completion and raise issues on a weekly basis.</li> <li>▪ <b>Non-Core Business Units</b> – Ongoing monitoring of Business Unit Readiness for the Non-Core Business Units reveals that all people and process are on track, but certain systems still need to be tested by the users during completion of Business Process End-to-End Testing. The Readiness Team will continue to work closely with the applicable Business Units, Program Management and Testing Team to complete the remaining Go-Live activities and deliverables. These activities include: ensuring application testing is executed, End-to-End business process are proved out, transition is finalized and all deliverables are completed and signed-off.</li> </ul>

**Risks and Mitigations (continued)**

<p><b>Market Participants</b></p>	<p>The Market Participants' Readiness in the People, Process and Technology areas is highly dependent upon a stable and effective Market Simulation environment to practice their internal processes and the ability to fully validate Settlement Charge Codes. With the start of IMS Update 2 on February 19<sup>th</sup>, the CAISO continues to do the following to achieve an effective Market Simulation:</p> <ul style="list-style-type: none"> <li>• Conduct an additional Settlement Workshop will for Charge Codes in IMS Update 2 as soon as Charge Codes are validated.</li> <li>• The ability for Market Participants to provide their own bids during Market Simulation.</li> <li>• The Quick Response Team will continue with their objectives until Go-Live. Retest of issues will begin as soon as applicable.</li> <li>• Market Participant Scenarios will be tested during Market Simulation.</li> <li>• Provide Market Simulation status reports showing which Charge Codes have valid results for each day of Market Simulation as well as a report that provides useful information on system status.</li> <li>• Continue with the scheduled meetings and workshops (ie: monthly MRTU Implementation Workshops, bi-weekly SIUG and SaMC meetings.)</li> <li>• Provide Onsite Testing and support at the CAISO during IMS U2 with specific Scheduling Coordinators selected by the Market Participants.</li> <li>• Conduct monthly Touchpoints during IMS Update 2 to gauge MPs' experience with Market Simulation and identify action items that the CAISO can take to ensure an effective Market Simulation.</li> <li>• Track SCs' Market Simulation activities by system (i.e. SIBR, CMRI, OASIS, BAPI). If SCs are identified as not participating, the CAISO will contact them to discuss the reason why.</li> </ul>
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**Key Activities and Next Steps:**

- The Quick Response Team will continue to address Participant issues in IMS Update 2.
- Continue analyzing and taking appropriate corrective actions to resolve Market Participant submitted market simulation issues. Communicate status of issues and begin retesting of the condition when appropriate to ensure resolution has been achieved.
- Hold Participant Bid to Bill session and review remaining MRTU training, both internal and external.
- IMS Update 2 final functionality drop targeted for late March 2008.
- A touch point call will be made with each of the certified SCs during the third or fourth week IMS Update 2 to gauge each SCs experience to date in Update 2.
- The MRTU Final Assessments will be scheduled during IMS Update 2 and completed 60 days prior to Go Live.
- Completion of SAIC System Certification, LECG Report and PwC Audit Opinion is contingent on Go Live date.
- FERC Informational Filing 60-Days in advance of Go Live (report will include status of remaining activities & milestones).

## Readiness Criteria High Level Overview: February Status Report

The following provides the overall status of the MRTU Readiness Criteria as of February 29, 2008.

### Total Number of MRTU Readiness Criteria: **33**

- # of Completed Readiness Criteria: **7**
- # of "On Track" Readiness Criteria: **19**
- # of "Not On Track" Readiness Criteria: **7**

### February Status Changes:

- # of Readiness Criteria that have changed status from Orange to Purple: **2**
  - The following criteria changed status from Orange to Purple:
    - SIM -1
    - TST-2
- # of Readiness Criteria that have changed status from Orange to Blue: **1**
  - The following criteria changed status from Orange to Blue:
    - TST-1
- # of Readiness Criteria that have changed status from Purple to Orange: **0**
- # of Readiness Criteria that have changed status from Purple to Blue: **0**

\*Only status change on parent criteria are counted in these statistics. Any status change on sub-criteria are not counted

### Readiness Criteria status is indicated by the following color codes:

- **Clear: A Readiness Criterion is clear (C) if:**
  - The Readiness Criterion has not begun.
- **Purple: A Readiness Criterion is purple (P) if:**
  - The completion or status updates are on schedule based on the specified target due date or milestone, OR
  - A mitigating action has been implemented successfully and the Readiness Criterion is back on schedule to be completed on the specified target due date.
- **Orange: A Readiness Criterion is orange (O) if:**
  - One or more Readiness Components in that Readiness Criterion are not complete on the specified target due date or milestone, OR
  - A Readiness Criteria has reported risks or issues that have a potential for not allowing it to be completed on the specified target due dates or milestones.
- **Blue: A Readiness Criterion is blue (B) if:**
  - All Readiness Components in that category are complete.

Readiness Criterion	Status	Comments
<b>Completed Readiness Criteria</b>		
<b>BPM – 1</b>	B	As of November 2007, all BPMs have met FERC directives and have been posted on the CAISO website.
<b>CRR – 1</b>	B	As of April 2007, the CAISO has completed the CRR Dry Run in Market Simulation.
<b>CRR-4</b>	B	The CAISO made its compliance filing with the FERC's Long-Term Transmission Rights Final Rule on January 29, 2007.
<b>ECA-1</b>	B	The Control Area Scheduler went live on 2/13/07 at 10:00 PM and all tags applicable to CAISO from Partisans have been linked to CAS.
<b>MM-Study 2</b>	B	Analysis of the potential LMPM deficiency showed that it was not a valid concern. Report on the LMPM deficiency can be found on the CAISO website.
<b>SE-1</b>	B	As of 6/30/07, the State Estimator has meet all stipulations of this Readiness Criterion.
<b>TST-1</b>	B	Performance Testing for IMS Update 2 has been completed and passed QRB Review.
<b>“On Track” Readiness Criteria</b>		
<b>CRR-2</b>	P	Integration testing of all CRR Broadcast Services for Settlements is planned to occur with SaMC during IMS Update 2.
<b>CRR-3</b>	P	As of 12/20/07, the annual Auction Process was completed. The timeline for the monthly allocation process is being reevaluated due to the changes in the MRTU schedule.
<b>ENT-1</b>	P	All enterprise systems are in the verification process to ensure that they will meet availability requirements.
<b>INF-1</b>	P	Monitoring tools and production environment are available to support Market Simulation.
<b>MKS-1</b>	P	Continuous runs of this scenario will occur in Update 2 and the CAISO will post the results once a successful run has been achieved.
<b>MKS-2</b>	P	The CAISO has developed a set of monitoring metrics to be used in the Post-Implementation evaluation.
<b>MM-Study 1</b>	P	As of 12/19/07, the third set of CPA reports were posted on the CAISO website. The final set will be published one month prior to Go-Live.

Readiness Criterion	Status	Comments
<b>“On Track” Readiness Criteria</b>		
<b>MS-1</b>	P	Application Monitoring of the applicable systems are in progress. All Hardware and monitoring tools have been deployed to measure availability of the systems during PPS.
<b>MOD-1</b>	P	Planning for the simultaneous update of the FMN is in progress.
<b>ORG-2</b>	P	Go-Live Checklist of all remaining activities and deliverables were created for all Business Units. Business Units are developing testing scenarios to prove out end to end processes and final application acceptance testing.
<b>PRT-1</b>	P	The CAISO is realigning the MRTU Final Assessments with the overall MRTU schedule. Once a Go-Live date has been determined, the CAISO will begin scheduling Final Assessments with Market Participants.
<b>PRT-2</b>	P	All Critical and Very High issues in IMS Update 2 are being resolved as they arise.
<b>REG-1</b>	P	Extensions from the August 3 <sup>rd</sup> filing and additional substantive and non-substantive compliance and 205 filing are on track to be completed 90-60 days prior to MRTU Go-Live.
<b>STL-1</b>	P	Revised Settlements BPM have been posted on the CAISO website. Audit of the SaMC software has begun and scheduled to complete by end of IMS U2.
<b>SIM - 1</b>	P	IMS Update 2 began on 02/19/08.
<b>TECH-1</b>	P	Operational Readiness Testing is in progress.
<b>TST- 2</b>	P	Integration testing to get into IMS Update 2 has been completed and passed QRB review. However, additional systems will be added into IMS U2 and integration testing is in progress for these systems.
<b>BUS-BA-1</b>	P	All systems are in review by the Business Units.
<b>BUS-BA -2</b>	P	Due to the changes in the MRTU schedule, the CAISO did not file a 60 Day Readiness Certification in January. The CAISO will realign the 60 Day Certification filing with the new Go-Live date once it has been established.

Readiness Criterion	Status	Comments
<b>“Not On Track” Readiness Criteria</b>		
<b>GO-1</b>		Additional Operating Procedures have been identified for a total of 5 operating procedures. 1 of the 5 Operating procedures is complete. The CAISO is reviewing the outstanding 4 Operating Procedures and feedback is needed from various sources (Legal, Market Operations).
<b>LMP Testing</b>		Analysis Track Testing is delayed due to issues stemming from overall variance resolution and software patching.
<b>LMP PRD</b>		The LMP tool is not in IMS Update 2 yet. Work on the tool and process is in progress and the CAISO expects to promote the tool and process into IMS Update 2 by late March.
<b>ORG-1</b>		Go-Live Checklist of all remaining activities and deliverables were created for all Business Units however, due to the Market Simulation schedule, certain activities are delayed.
<b>ORG-3</b>		The EDR is not available to DMM. Testing and refining of monitoring metrics and processes are behind schedule due to delays in EDR development.
<b>STL-2</b>		Charge types have been rolled out during Update 1 and will continue to be rolled out into Update 2 of IMS.
<b>STL-3</b>		At the conclusion of IMS Update 1, 29 Charge Types have been validated from Bid to Bill.

## CERTIFICATE OF SERVICE

I hereby certify that I have caused the public version of the foregoing document to be served upon the Public Utilities Commission of the State of California and upon all parties of the official service lists maintained by the Secretary for Docket No. ER06-615.

Dated at Folsom, California, this 3rd day of March 2008.

*/s/ Susan Montana*  
Susan Montana